

## **REMARKS**

Claims 72 – 98 are pending in this application. Claim 91 has been amended to correct an antecedent basis problem with the claim. No new matter has been added to the application by way of this claim amendment.

### **I. TRAVERSE OF THE OBVIOUSNESS REJECTION OF ALL CLAIMS**

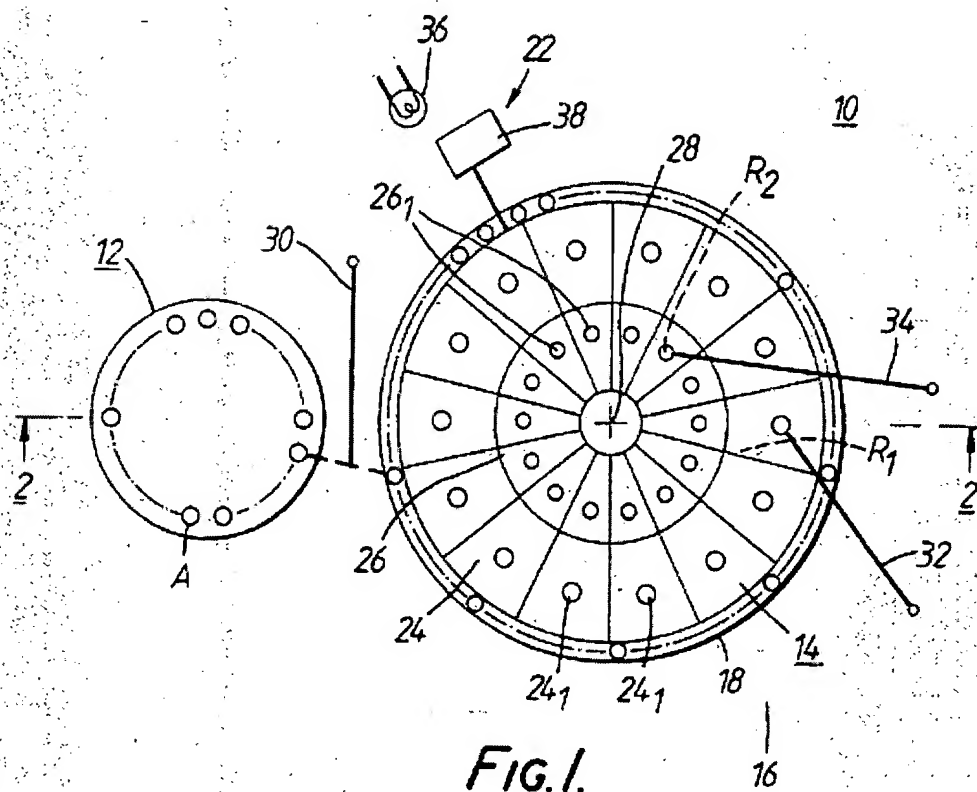
The Examiner rejected claims 72-87 under 35 U.S.C. 103(a) as being unpatentable over the Minekane patent in view of the Azuma et al. patent. The Examiner's rejection does not identify the Azuma et al. patent in the first paragraph of the rejection on page 3 of the Official Action. However, since the Azuma et al. reference is mentioned later in the rejection, the Applicants understand that the Examiner is rejecting all pending claims for obviousness on the basis of the combination of both references.

All pending claims 72-98 are non-obvious over the prior art of record. The Examiner bears the burden of establishing *prima facie* obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). "A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Rinehart*, 531 F.2d 1048, 1051 189 USPQ 143, 147 (CCPA 1976). In this case, a *prima facie* case of obviousness has not been established with respect to claims because: (1) there is no suggestion for the combination of prior art references cited by the Examiner; and (2) even if properly combined, the two references still do not disclose or suggest all features of claims 72-98.

Before traversing the Examiner's obviousness rejection, the teachings of the prior art references cited by the Examiner will be summarized.

### The Minekane Reference

The Minekane reference (USP 4,808,380) discloses an automatic chemical analyzing apparatus. The apparatus shown in Figure 1 of the patent and reproduced below includes a chemical reaction analyzer that includes a cuvette rotor 18 and reagent rings 24 and 26, each reagent ring including a plurality of reagent containers. The cuvette rotor 18 and reagent rings 24 and 26 rotate independently from one another.

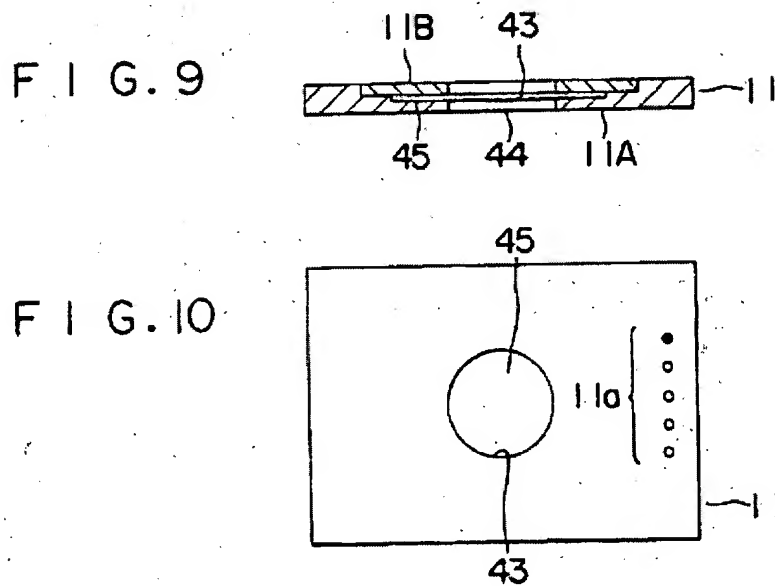


Liquid samples that will undergo analysis are loaded into cuvettes from sample supply 12 using a sample dispenser 30. Reagents are loaded into cuvettes using first reagent dispenser 32 and second reagent dispenser 34. The reagent is dispensed using dispenser probe 32 that sucks a reagent solution out of a reagent container and then the probe moves to a reagent charge point on a circular path cuvette array 20.

The position of reagent container ring 24 is determined by a control unit based upon the reading of a bar or other machine readable code applied to reagent containers.

### The Azuma Reference

The Azuma patent (USP 4,795,613) discloses a biochemical analyzer. The analyzer includes a measuring element 11 shown in Figures 9-10 below.



Measuring element 11 includes an analytical membrane 45 that is impregnated with a chemical analysis compound. Membrane 45 is held between base 11a and cover 11b of measuring element 11. Measuring element 11 includes a coded representation 11a that corresponds to the chemical analysis element associated with the measuring element. (See col. 3, lines 7-21).

Measuring element 11 is used by placing it into an analysis device. The device includes a pipette port 29 (See Item 29 of Figure 3) for introducing a liquid specimen into hole 43 of measuring element 11. A reaction occurs between the liquid specimen and the chemical analysis compound of analytic membrane 45 of measuring element 11. The reaction results are indicated by a change in the density of color of specimen. (Col. 4, lines 53-64).

**A. There Is No Prima Facie Case Of Obviousness Because The References Have Been Improperly Combined By The Examiner**

The Examiner has failed to establish a *prima facie* case of obviousness because there is no suggestion for the combination of references cited by the Examiner. In order to make out a *prima facie* case of obviousness, the Examiner must identify objective reasons why one of ordinary skill in the art would have been motivated to combine the references cited by the Examiner at the time of the invention. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). "Combining prior art references without evidence of a suggestion, teaching, or motivation simply takes the inventors disclosure as a blueprint for piecing together the prior art to defeat patentability-the essence of hindsight." *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999).

There is no suggestion for the Examiner's combination of references because the Minekane patent and the Azuma patent are directed to inventions that test samples using very different methods and apparatuses. The Minekane patent discloses an apparatus for performing analyses on liquid samples in cuvettes using liquid reagents. The Azuma patent, on the other hand, discloses an apparatus that uses a solid reactant-containing membrane that reacts with a liquid sample to give a detectable result. Based upon the very different manner in which the apparatuses of the two prior art references are constructed and operate, it is clear that one of ordinary skill in the art would not be motivated to combine the references as the Examiner has. For at least this reason, the Examiner's obviousness rejection of claims 73-98 should be withdrawn.

**B. There Is No Prima Facie Case Of Obviousness Because The References – When Combined – Do Not Disclose Every Feature Of The Claimed Inventions**

The Examiner has also not established a *prima facie* case of obviousness because the prior art references cited by the Examiner, when combined, fail to disclose every feature of each of claims

72-98. The features missing from the claimed invention and the claims implicated by the missing elements are set forth in detail below.

**1. The Prior Art Does Not Disclose Or Suggest Dispensing Reagents Onto Slides**

Claims 72-98 are directed to methods for dispensing reagents onto a slide. Neither of the prior art references disclose dispensing reagents onto a slide. For at least this reason, claims 72-98 are not obvious.

The Examiner admits that Minekane is directed to apparatuses that dispense reagents into cuvettes. The Examiner takes the position that this missing teaching – employing slides with bar codes to receive reagents - is provided by the Azuma reference. The Azuma reference, however, does not disclose dispensing reagents of any kind, nor does it disclose the use of slides as the medium on which analyses are performed. What Azuma does disclose is a measuring element 11. Moreover, the sample is not applied to a slide. Instead, it is applied to the specially designed measuring element 11 that includes a small well for receiving the liquid.

The claimed invention – in contrast – is directed to dispensing liquid reagents onto a slide. Because Azuma does not disclose (1) dispensing liquid reagents; nor (2) performing tests on slides, the Examiner's reliance on the teaching of Azuma is misplaced and the Examiner's obviousness rejection of claims 72-98 must be withdrawn.

**2. The Prior Art Does Not Disclose The Feature Of Claims 73-78 Of “automatically determining whether reagent in the reagent container should be dispensed onto the slides includes identifying information from the slide”**

Claim 73 and claims 74-78, which depend directly or indirectly upon claim 73, each include steps of “automatically determining whether reagent in the reagent container should be dispensed

onto the slide ... [by] identifying information from the slide.” Neither reference cited by the Examiner discloses or suggests this claimed feature of the present invention.

The Minekane reference includes bar codes associated with the reagent containers that relate to information about the container. The Minekane reference does not include any identifying information on the cuvette holding the samples being tested. The Azuma reference does not supply this missing teaching. Measuring element 11 used in Azuma does include identifying information. The identifying information, however, relates to the type of analytical membrane 45 that is associated with the chemical analysis test the element is designed for. (Col. 3, lines 21-35). As discussed above, the Azuma apparatus does not use liquid reagents. Therefore, it is impossible for the identifying information on the Azuma measuring element to relate to “whether reagent in the reagent container should be dispensed onto the slide” because in Azuma, no reagent is ever dispensed! For this reason, neither Minekane nor Azuma alone or together disclose or suggest the feature of determining whether a reagent in a reagent container should be dispensed onto a slide based upon information associated with the slide of claims 73-79 and these claims should be allowed.

**3. The Prior Art Does Not Disclose The Feature Of Claims 88-98 Of Dispensing A Reagent Onto A Slide By Positioning The Reagent Container Over The Slide**

The prior art does not disclose the feature of claims 88-98 of dispensing a reagent onto a slide by positioning the reagent container over the slide. For this reason, claims 88 - 98 are independently patentable over the prior art of record.

The Minekane reference is the only reference that discloses dispensing liquid reagents. However, the Minekane reference does not position the reagent container over a slide. Instead, the reagent containers are orientated axially and adjacent to the cuvettes in which the reagents are

dispensed. Moreover, reagents are transferred from the reagent container to the cuvette in Minekane using probes that suck reagent from the reagent container and thereafter move axially to dispense the reagent into a cuvette. For at least this reason, the prior art does not disclose reagent containers positioned over any receptacle in which the reagent is dispensed thereby rendering claims 89-98 patentable over the prior art of record.

**4. The Prior Art Does Not Disclose The Feature Of Claims 97-98 Of Dispensing A Reagent Onto A Slide By Positioning The Reagent Over The Slide And Pushing Downwards On The Reagent Container To Dispense Reagent**

Claims 97-98 disclose a feature of dispensing a reagent onto a slide by (1) positioning the reagent container over the slide; and (2) pushing downwards on the reagent container to dispense reagents. For the reasons indicated in Section I(B)(3) above, the prior art does not disclose positioning reagent containers over a cuvette or a slide. Moreover, the prior art does not disclose dispensing a reagent by pushing downwards or otherwise moving the reagent container. For at this reason, the prior art does not disclose or suggest every feature of claims 97-98 and Examiner's rejection of these claims should be withdrawn.

**II. THE DOUBLE PATENTING REJECTION**

The Examiner rejected claims 72-98 under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,352,861.

This claim rejection has been overcome by filing a Terminal Disclaimer in this case with respect to U.S. Patent No. 6,352,861. A copy of the Terminal Disclaimer which has been filed contemporaneously with this Reply is attached at Appendix A of this Reply.

## CONCLUSION

The Applicants have shown, above, that there is no *prima facie* case of obviousness of the pending application claims based upon the combinations of the prior art cited by the Examiner. Therefore, favorable reconsideration and allowance of all pending application claims 72-98 is courteously solicited.

Respectfully submitted,

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